

AMENDMENTS TO THE CLAIMS

1. (Original) An information reproduction apparatus that reproduces information recorded in a medium, comprising:

a pickup for extracting the information recorded in the medium and outputting the extracted signal;

a sag detection part for detecting a transient state of the signal outputted from the pickup and outputting the detection result as a transient state detection signal;

a sag cancellation controller for detecting whether the signal outputted from the pickup is normal or abnormal; and

a sag cancellation part for performing no correction of a transient on the signal outputted from the pickup during a period that is judged as normal by the sag cancellation controller, and performing a correction of a transient on the signal outputted from the pickup on the basis of the transient state detection signal outputted from the sag detection part only during a period that is judged as abnormal by the sag cancellation controller.

2. (Original) An information reproduction apparatus that reproduces information recorded in a medium, comprising:

a pickup for extracting the information recorded in the medium and outputting the extracted signal;

an AD conversion part for subjecting the signal outputted from the pickup to analog-digital conversion;

a sag detection part for detecting a transient state of the digital signal outputted from the AD conversion part and outputting the detection result as a transient state detection signal;

a sag cancellation controller for detecting whether the digital signal outputted from the AD conversion part is normal or abnormal; and

a sag cancellation part for performing no correction of a transient on the digital signal outputted from the AD conversion part during a period that is judged as normal by the sag cancellation controller, and performing a correction of a transient on the digital signal outputted from the AD conversion part on the basis of the transient state detection signal outputted from

the sag detection part only during a period that is judged as abnormal by the sag cancellation controller.

3. (Original) An information reproduction apparatus that reproduces information recorded in a medium, comprising:

- a pickup for extracting the information recorded in the medium and outputting the extracted signal;

- an AD conversion part for subjecting the signal outputted from the pickup to analog-digital conversion;

- a sag detection part for detecting a transient state of the signal outputted from the pickup and outputting the detection result as a transient state detection signal;

- a sag cancellation controller for detecting whether the digital signal outputted from the AD conversion part is normal or abnormal; and

- a sag cancellation part for performing no correction of a transient on the digital signal outputted from the AD conversion part during a period that is judged as normal by the sag cancellation controller, and performing a correction of a transient on the digital signal outputted from the AD conversion part on the basis of the transient state detection signal outputted from the sag detection part only during a period that is judged as abnormal by the sag cancellation controller.

4. (Original) An information reproduction apparatus that reproduces information recorded in a medium, comprising:

- a pickup for extracting the information recorded in the medium and outputting the extracted signal;

- an AD conversion part for subjecting the signal outputted from the pickup to analog-digital conversion;

- a sag detection part for detecting a transient state of the digital signal outputted from the AD conversion part and outputting the detection result as a transient state detection signal;

- a sag cancellation controller for detecting whether the signal outputted from the pickup is normal or abnormal; and

a sag cancellation part for performing no correction of a transient on the digital signal outputted from the AD conversion part during a period that is judged as normal by the sag cancellation controller, and performing a correction of a transient on the digital signal outputted from the AD conversion part on the basis of the transient state detection signal outputted from the sag detection part only during a period that is judged as abnormal by the sag cancellation controller.

5. (Original) An information reproduction apparatus that reproduces information recorded in a medium, comprising:

a pickup for extracting the information recorded in the medium and outputting the extracted signal;

an AD conversion part for subjecting the signal outputted from the pickup to analog-digital conversion;

a sag detection part for detecting a transient state of the signal outputted from the pickup and outputting the detection result as a transient state detection signal;

a sag cancellation controller for detecting whether the signal outputted from the pickup is normal or abnormal; and

a sag cancellation part for performing no correction of a transient on the digital signal outputted from the AD conversion part during a period that is judged as normal by the sag cancellation controller, and performing a correction of a transient on the digital signal outputted from the AD conversion part on the basis of the transient state detection signal outputted from the sag detection part only during a period that is judged as abnormal by the sag cancellation controller.

6. (Previously Presented) The information reproduction apparatus as defined in Claim 1, wherein

the sag cancellation controller judges whether the signal outputted from the pickup is normal or abnormal, on the basis of defect information that is detected from the signal outputted from the pickup.

7. (Previously Presented) The information reproduction apparatus as defined in Claim 1, wherein

the sag cancellation controller judges whether the signal outputted from the pickup is normal or abnormal, on the basis of de-tracking detection information indicating that the pickup is in a de-tracking state.

8. (Previously Presented) The information reproduction apparatus as defined in Claim 1, wherein

the sag cancellation controller judges whether the signal extracted by the pickup is normal or abnormal, on the basis of de-tracking detection information indicating that the pickup is in a de-tracking state, and defect information that is detected from the signal outputted from the pickup.

9. (Previously Presented) The information reproduction apparatus as defined in Claim 6, wherein

the sag cancellation controller further extends, by a predetermined period, a defect period indicated by the defect information, and judges the extended period as a period during which the signal extracted by the pickup is abnormal.

10. (Previously Presented) The information reproduction apparatus as defined in Claim 1, wherein

the sag cancellation controller judges whether the signal outputted from the pickup is normal or abnormal, on the basis of amplitude information of the signal outputted from the pickup.

11. (Previously Presented) The information reproduction apparatus as defined in Claim 1, comprising

a PLL for making a binarized signal of the signal outputted from the sag cancellation part follow a reference frequency; and

the sag cancellation controller judging whether the signal extracted by the pickup is normal or abnormal, on the basis of state information outputted from the PLL.

12. (Original) An information reproduction method for reproducing information recorded in a disk, comprising:

a sag detection step of detecting a transient state of the signal read from the disk and outputting the detection result as a transient state detection signal;

a sag cancellation control step of detecting whether the signal from the disk is normal or abnormal;

a sag cancellation step of performing no correction of a transient on the signal from the disk during a period that is judged as normal in the sag cancellation control step, and performing a correction of a transient on the signal read from the disk on the basis of the transient state detection signal only during a period that is judged as abnormal in the sag cancellation control step.

13. (Previously Presented) The information reproduction apparatus as defined in Claim 2, wherein

the sag cancellation controller judges whether the signal outputted from the pickup is normal or abnormal, on the basis of defect information that is detected from the signal outputted from the pickup.

14. (Previously Presented) The information reproduction apparatus as defined in Claim 3, wherein

the sag cancellation controller judges whether the signal outputted from the pickup is normal or abnormal, on the basis of defect information that is detected from the signal outputted from the pickup.

15. (Previously Presented) The information reproduction apparatus as defined in Claim 4, wherein

the sag cancellation controller judges whether the signal outputted from the pickup is normal or abnormal, on the basis of defect information that is detected from the signal outputted from the pickup.

16. (Previously Presented) The information reproduction apparatus as defined in Claim 5, wherein

the sag cancellation controller judges whether the signal outputted from the pickup is normal or abnormal, on the basis of defect information that is detected from the signal outputted from the pickup.

17. (Previously Presented) The information reproduction apparatus as defined in Claim 2, wherein

the sag cancellation controller judges whether the signal outputted from the pickup is normal or abnormal, on the basis of de-tracking detection information indicating that the pickup is in a de-tracking state.

18. (Previously Presented) The information reproduction apparatus as defined in Claim 3, wherein

the sag cancellation controller judges whether the signal outputted from the pickup is normal or abnormal, on the basis of de-tracking detection information indicating that the pickup is in a de-tracking state.

19. (Previously Presented) The information reproduction apparatus as defined in Claim 4, wherein

the sag cancellation controller judges whether the signal outputted from the pickup is normal or abnormal, on the basis of de-tracking detection information indicating that the pickup is in a de-tracking state.

20. (Previously Presented) The information reproduction apparatus as defined in Claim 5, wherein

the sag cancellation controller judges whether the signal outputted from the pickup is normal or abnormal, on the basis of de-tracking detection information indicating that the pickup is in a de-tracking state.

21. (Previously Presented) The information reproduction apparatus as defined in Claim 2, wherein

the sag cancellation controller judges whether the signal extracted by the pickup is normal or abnormal, on the basis of de-tracking detection information indicating that the pickup is in a de-tracking state, and defect information that is detected from the signal outputted from the pickup.

22. (Previously Presented) The information reproduction apparatus as defined in Claim 3, wherein

the sag cancellation controller judges whether the signal extracted by the pickup is normal or abnormal, on the basis of de-tracking detection information indicating that the pickup is in a de-tracking state, and defect information that is detected from the signal outputted from the pickup.

23. (Previously Presented) The information reproduction apparatus as defined in Claim 4, wherein

the sag cancellation controller judges whether the signal extracted by the pickup is normal or abnormal, on the basis of de-tracking detection information indicating that the pickup is in a de-tracking state, and defect information that is detected from the signal outputted from the pickup.

24. (Previously Presented) The information reproduction apparatus as defined in Claim 5, wherein

the sag cancellation controller judges whether the signal extracted by the pickup is normal or abnormal, on the basis of de-tracking detection information indicating that the pickup

is in a de-tracking state, and defect information that is detected from the signal outputted from the pickup.

25. (Previously Presented) The information reproduction apparatus as defined in Claim 2, wherein

the sag cancellation controller judges whether the signal outputted from the pickup is normal or abnormal, on the basis of amplitude information of the signal outputted from the pickup.

26. (Previously Presented) The information reproduction apparatus as defined in Claim 3, wherein

the sag cancellation controller judges whether the signal outputted from the pickup is normal or abnormal, on the basis of amplitude information of the signal outputted from the pickup.

27. (Previously Presented) The information reproduction apparatus as defined in Claim 4, wherein

the sag cancellation controller judges whether the signal outputted from the pickup is normal or abnormal, on the basis of amplitude information of the signal outputted from the pickup.

28. (Previously Presented) The information reproduction apparatus as defined in Claim 5, wherein

the sag cancellation controller judges whether the signal outputted from the pickup is normal or abnormal, on the basis of amplitude information of the signal outputted from the pickup.

29. (Previously Presented) The information reproduction apparatus as defined in Claim 2, comprising

a PLL for making a binarized signal of the signal outputted from the sag cancellation part follow a reference frequency; and

the sag cancellation controller judging whether the signal extracted by the pickup is normal or abnormal, on the basis of state information outputted from the PLL.

30. (Previously Presented) The information reproduction apparatus as defined in Claim 3, comprising

a PLL for making a binarized signal of the signal outputted from the sag cancellation part follow a reference frequency; and

the sag cancellation controller judging whether the signal extracted by the pickup is normal or abnormal, on the basis of state information outputted from the PLL.

31. (Previously Presented) The information reproduction apparatus as defined in Claim 4, comprising

a PLL for making a binarized signal of the signal outputted from the sag cancellation part follow a reference frequency; and

the sag cancellation controller judging whether the signal extracted by the pickup is normal or abnormal, on the basis of state information outputted from the PLL.

32. (Previously Presented) The information reproduction apparatus as defined in Claim 5, comprising

a PLL for making a binarized signal of the signal outputted from the sag cancellation part follow a reference frequency; and

the sag cancellation controller judging whether the signal extracted by the pickup is normal or abnormal, on the basis of state information outputted from the PLL.

33. (New) The information reproduction apparatus as defined in Claim 8, wherein

the sag cancellation controller further extends, by a predetermined period, a defect period indicated by the defect information, and judges the extended period as a period during which the signal extracted by the pickup is abnormal.

34. (New) The information reproduction apparatus; as defined in Claim 13, wherein
the sag cancellation controller further extends, by a predetermined period, a defect period
indicated by the defect information, and judges the extended period as a period during which the
signal extracted by the pickup is abnormal.
35. (New) The information reproduction apparatus as defined in Claim 14, wherein
the sag cancellation controller further extends, by a predetermined period, a defect period
indicated by the defect information, and judges the extended period as a period during which
the signal extracted by the pickup is abnormal.
36. (New) The information reproduction apparatus as defined in Claim 15, wherein
the sag cancellation controller further extends, by a predetermined period, a defect period
indicated by the defect information, and judges the extended period as a period during which the
signal extracted by the pickup is abnormal.
37. (New) The information reproduction apparatus as defined in Claim 16, wherein
the sag cancellation controller further extends, by a predetermined period, a defect period
indicated by the defect information, and judges the extended period as a period during which the
signal extracted by the pickup is abnormal.
38. (New) The information reproduction apparatus as defined in Claim 21, wherein
the sag cancellation controller further extends, by a predetermined period, a defect period
indicated by the defect information, and judges the extended period as a period during which the
signal extracted by the pickup is abnormal.
39. (New) The information, reproduction apparatus as defined in Claim 22, wherein
the sag cancellation controller further extends, by a predetermined period, a defect period
indicated by the defect information, and judges the extended period as a period during which the
signal extracted by the pickup is abnormal.

40. (New) The information reproduction apparatus as defined in Claim 23, wherein
the sag cancellation controller further extends, by a predetermined period, a defect period
indicated by the defect information, and judges the extended period as a period during which the
signal extracted by the pickup is abnormal.

41. (New) The information reproduction apparatus as defined in Claim 24, wherein
the sag cancellation controller further extends, by a predetermined period, a defect period
indicated by the defect information, and judges the extended period as a period during which the
signal extracted by the pickup is abnormal.